

**SECTION J, ATTACHMENT 6**  
**PERFORMANCE EQUIVALENCE SHEET (PES)**  
**FOR**  
**INTEGRATED COMMERCIAL INTRUSION DETECTION SYSTEM-IV**  
**(ICIDS-IV)**  
**04 May 2007**

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 1

SENSOR: BALANCED MAGNETIC SWITCH (BMS) WITH REMOTE TEST

MODEL: SENTROL 2706AP OR EQUAL

DESCRIPTION: THE BALANCED MAGNETIC SWITCH (BMS) IS AN INTRUSION DETECTION SENSOR. IT IS INTENDED TO DETECT THE OPENING OF A DOOR OR WINDOW. IN A TYPICAL APPLICATION, THE SWITCH ASSEMBLY IS MOUNTED TO THE DOOR FRAME AND THE ACTUATING MAGNET ASSEMBLY IS MOUNTED TO THE DOOR OR WINDOW. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR THE STANDARD CONFIGURATION SENSOR WITH REMOTE TEST CAPABILITY:

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 634)
2. ALARM CRITERIA: - CHANGE IN THE MAGNETIC FIELD CAUSED BY  $.80 \pm 0.40$  INCH IN SEPARATION OF THE MAGNETS - LOCAL MAGNETIC FIELD HAS A POSITIVE OR NEGATIVE DIFFERENCE FROM THE FIELD AT THE TIME OF ADJUSTMENT; GREATER THAN 67 GAUSS
3. TAMPER PROTECTION - MEET UL 634
4. SENSOR STIMULUS - ALLOWS THE SENSOR TO BE TESTED FROM A REMOTE LOCATION
5. OPERATIONAL POWER - 12 VOLTS DC

NOTE: SENTROL IS NOW OPERATING UNDER GENERAL ELECTRIC (GE) SECURITY

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 2

SENSOR: BALANCED MAGNETIC SWITCH (BMS) WITHOUT REMOTE TEST

MODEL: SENTROL 2707A OR EQUAL

DESCRIPTION. THE BALANCED MAGNETIC SWITCH (BMS) IS AN INTRUSION DETECTION SENSOR. IT IS INTENDED TO DETECT THE OPENING OF A DOOR OR WINDOW. IN A TYPICAL APPLICATION, THE SWITCH ASSEMBLY IS MOUNTED TO THE DOOR FRAME AND THE ACTUATING MAGNET ASSEMBLY IS MOUNTED TO THE DOOR OR WINDOW. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR THE STANDARD CONFIGURATION SENSOR WITHOUT REMOTE TEST CAPABILITY:

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 634)
2. ALARM CRITERIA: - CHANGE IN THE MAGNETIC FIELD CAUSED BY  $.80 \pm 0.40$  INCH IN SEPARATION OF THE MAGNETS - LOCAL MAGNETIC FIELD HAS A POSITIVE OR NEGATIVE DIFFERENCE FROM THE FIELD AT THE TIME OF ADJUSTMENT; GREATER THAN 67 GAUSS
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER - 12 VOLTS DC

NOTE: SENTROL IS NOW OPERATING UNDER GENERAL ELECTRIC (GE) SECURITY

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 3

SENSOR: BALANCED MAGNETIC SWITCH (BMS) LOW PROFILE WITHOUT  
REMOTE TEST

MODEL: SENTROL 2727A OR EQUAL

DESCRIPTION. THE BALANCED MAGNETIC SWITCH (BMS) IS AN INTRUSION DETECTION SENSOR. IT IS INTENDED TO DETECT THE OPENING OF A DOOR OR WINDOW. IN A TYPICAL APPLICATION, THE SWITCH ASSEMBLY IS MOUNTED TO THE DOOR FRAME AND THE ACTUATING MAGNET ASSEMBLY IS MOUNTED TO THE DOOR OR WINDOW. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR THE LOW-PROFILE HERMETICALLY SEALED CONFIGURATION SENSOR WITHOUT REMOTE SELF-TEST CAPABILITY:

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 634)
2. ALARM CRITERIA: - CHANGE IN THE MAGNETIC FIELD CAUSED BY LESS THAN .7 INCH OR GREATER THAN 2 INCHES IN SEPARATION OF THE MAGNETS - LOCAL MAGNETIC FIELD HAS A POSITIVE OR NEGATIVE DIFFERENCE FROM THE FIELD AT THE TIME OF ADJUSTMENT; GREATER THAN 67 GAUSS
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER - 12 VOLTS DC
5. LOW PROFILE CONSTRUCTION - DESIGNED FOR OVERHEAD DOORS

NOTE: SENTROL IS NOW OPERATING UNDER GENERAL ELECTRIC (GE)  
SECURITY

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 4

SENSOR: PASSIVE INFRARED MOTION SENSOR (PIMS) VOLUMETRIC  
WITH REMOTE TEST

MODEL: SENTROL 6187CTX-N6 OR EQUAL

DESCRIPTION. THE VOLUMETRIC OR WIDE ANGLE PASSIVE INFRARED MOTION SENSOR (PIMS) IS AN INTRUSION DETECTION SENSOR. IT IS INTENDED TO DETECT A MOVING INTRUDER WITHIN THE FIELD OF VIEW. IN A TYPICAL APPLICATION, THE PIMS IS MOUNTED ON A STURDY WALL ABOVE HEAD HEIGHT. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR A VOLUMETRIC SENSOR WITH REMOTE SELF-TEST CAPABILITY:

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 639)
2. ALARM CRITERIA: - VELOCITY 0.4 FT/SEC TO 8 FT/SEC - AT ALL RANGES FROM 6 FT UP TO 30 FT - ON ALL AZIMUTH ANGLES BETWEEN +/- 45 DEGREES FROM BORE SIGHT
3. TAMPER PROTECTION - MEET UL 634
4. SENSOR STIMULUS - ALLOWS SENSOR TO BE TESTED FROM A REMOTE LOCATION
5. OPERATIONAL POWER - 12 VOLTS DC
6. POWER CONSUMPTION - LESS THAN 25mA @ 12 Vdc
7. SENSITIVITY ADJUSTMENT - AT LEAST TWO LEVELS

NOTE: SENTROL IS NOW OPERATING UNDER GENERAL ELECTRIC (GE) SECURITY

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 5

SENSOR: PASSIVE INFRARED MOTION SENSOR (PIMS) VOLUMETRIC  
WITHOUT REMOTE TEST

MODEL: SENTROL 6187CTX OR EQUAL

DESCRIPTION. THE VOLUMETRIC OR WIDE ANGLE PASSIVE INFRARED MOTION SENSOR (PIMS) IS AN INTRUSION DETECTION SENSOR. IT IS INTENDED TO DETECT A MOVING INTRUDER WITHIN THE FIELD OF VIEW. IN A TYPICAL APPLICATION, THE PIMS IS MOUNTED ON A STURDY WALL ABOVE HEAD HEIGHT. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR A PIM VOLUMETRIC SENSOR WITHOUT REMOTE TEST CAPABILITY:

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 639)
2. ALARM CRITERIA: - VELOCITY 0.4 FT/SEC TO 8 FT/SEC - AT ALL RANGES FROM 6 FT UP TO 30 FT - ON ALL AZIMUTH ANGLES BETWEEN +/- 45 DEGREE FROM BORE SIGHT
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER - 12 VOLTS DC
5. POWER CONSUMPTION - LESS THAN 25mA @ 12 Vdc
6. SENSITIVITY ADJUSTMENT - AT LEAST TWO LEVELS

NOTE: SENTROL IS NOW OPERATING UNDER GENERAL ELECTRIC (GE) SECURITY

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 6

SENSOR: PASSIVE INFRARED MOTION SENSOR (PIMS) CURTAIN WITH  
REMOTE TEST

MODEL: SENTROL 6187CTX-N6 OR EQUAL

DESCRIPTION. THE CURTAIN PASSIVE INFRARED MOTION SENSOR (PIMS) IS AN INTRUSION DETECTION SENSOR. IT IS INTENDED TO DETECT A MOVING INTRUDER WITHIN THE FIELD OF VIEW. IN A TYPICAL APPLICATION, THE CURTAIN PIMS IS MOUNTED ON A STURDY WALL ABOVE HEAD HEIGHT. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR A CURTAIN SENSOR WITH TEST CAPABILITY:

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 639)
2. ALARM CRITERIA: - VELOCITY 0.4 FT/SEC TO 11 FT/SEC - AT ALL RANGES FROM 6 FT UP TO 30 FT - ON ALL AZIMUTH ANGLES BETWEEN +/- 3 DEGREES FROM BORE SIGHT.
3. TAMPER PROTECTION - MEET UL 634
4. SENSOR STIMULUS - ALLOWS SENSOR TO BE TESTED FROM A REMOTE LOCATION
5. OPERATIONAL POWER - 12 VOLTS DC
6. POWER CONSUMPTION - LESS THAN 25mA @ 12 Vdc

NOTE: SENTROL IS NOW OPERATING UNDER GENERAL ELECTRIC (GE) SECURITY

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 7

SENSOR: PASSIVE INFRARED MOTION SENSOR (PIMS) CURTAIN  
WITHOUT REMOTE TEST

MODEL: SENTROL 6187CTX/6073 OR EQUAL

DESCRIPTION. THE CURTAIN PASSIVE INFRARED MOTION SENSOR (PIMS) IS AN INTRUSION DETECTION SENSOR EQUIPPED WITH SENTROL 6073 CURTAIN LENS FOR LONG RANGE OPERATIONS. IT IS INTENDED TO DETECT A MOVING INTRUDER WITHIN THE FIELD OF VIEW. IN A TYPICAL APPLICATION, THE PIMS IS MOUNTED ON A STURDY WALL ABOVE HEAD HEIGHT. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR A CURTAIN SENSOR WITHOUT REMOTE TEST CAPABILITY:

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 639)
2. ALARM CRITERIA: - VELOCITY 0.4 FT/SEC TO 11 FT/SEC - AT ALL RANGES FROM 6 FT UP TO 30 FT - ON ALL AZIMUTH ANGLES BETWEEN  $\pm 3$  DEGREES FROM BORE SIGHT
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER - 12 VOLTS DC
5. POWER CONSUMPTION - LESS THAN 25mA @ 12 Vdc

NOTE: SENTROL IS NOW OPERATING UNDER GENERAL ELECTRIC (GE) SECURITY

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 8

SENSOR: PASSIVE INFRARED MOTION SENSOR (PIMS) OMNI-DIRECTIONAL WITH REMOTE TEST

MODEL: PULNIX 7100-ET OR SENTROL AP669RT OR EQUAL

DESCRIPTION. THE OMNI-DIRECTIONAL PASSIVE INFRARED MOTION SENSOR (PIMS) IS AN INTRUSION DETECTION SENSOR. IT IS INTENDED TO DETECT A MOVING INTRUDER WITHIN THE FIELD OF VIEW. IN A TYPICAL APPLICATION, THE PIMS IS MOUNTED ON THE CEILING. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR AN OMNI-DIRECTIONAL SENSOR WITH REMOTE TEST CAPABILITY:

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 639)
2. ALARM CRITERIA: - VELOCITY 0.4 FT/SEC TO 9 FT/SEC - AT ALL RANGES UP TO 20 FT @ HGT 9'1" - AT ALL ANGLES ABOUT A LINE THROUGH A POINT DIRECTLY BELOW THE SENSOR
3. TAMPER PROTECTION - MEET UL 634
4. SENSOR STIMULUS - ALLOWS SENSOR TO BE TESTED FROM A REMOTE LOCATION
5. OPERATIONAL POWER - 12 VOLTS DC
6. POWER CONSUMPTION - LESS THAN 25mA @ 12 Vdc
7. SENSITIVITY ADJUSTMENT - AT LEAST TWO LEVELS

NOTE: PULNIX IS NOW OPERATING UNDER TAKEX AMERICA, INC.

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 9

SENSOR: PASSIVE INFRARED MOTION SENSOR (PIMS) OMNI-DIRECTIONAL WITHOUT REMOTE TEST

MODEL: PULNIX (TAKEX) PA7100-ET OR EQUAL

DESCRIPTION. THE OMNI-DIRECTIONAL PASSIVE INFRARED MOTION SENSOR (PIMS) IS AN INTRUSION DETECTION SENSOR. IT IS INTENDED TO DETECT A MOVING INTRUDER WITHIN THE FIELD OF VIEW. IN A TYPICAL APPLICATION, THE PIMS IS MOUNTED ON THE CEILING. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR AN OMNI-DIRECTIONAL SENSOR WITHOUT REMOTE TEST CAPABILITY:

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 639)
2. ALARM CRITERIA: - VELOCITY 0.4 FT/SEC TO 9 FT/SEC - AT ALL RANGES UP TO 20 FT @ HGT 9'1" - AT ALL ANGLES ABOUT A LINE THROUGH A POINT DIRECTLY BELOW THE SENSOR
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER - 12 VOLTS DC
5. POWER CONSUMPTION - LESS THAN 25mA @ 12 Vdc
6. SENSITIVITY ADJUSTMENT - AT LEAST TWO LEVELS

NOTE: PULNIX IS NOW OPERATING UNDER TAKEX AMERICA, INC.

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 10

SENSOR: DUAL TECHNOLOGY HIGH SECURITY (HS) – MICROWAVE AND INFRARED WITH REMOTE TEST

MODEL: PROTECH SDI-76M-HS1 OR EQUAL

DESCRIPTION. THE DUAL TECHNOLOGY SENSOR (HS) UTILIZES A MICROWAVE MOTION SENSOR (MMS) AND A PASSIVE INFRARED MOTION SENSOR (PIMS) TO SATISFY THE HIGH SECURITY REQUIREMENT. IT IS INTENDED TO DETECT A MOVING PERSON. IN A TYPICAL APPLICATION, THE HS IS MOUNTED ON A WALL ABOVE HEAD HEIGHT AND PROTECTS A VOLUME DIRECTLY IN FRONT AND TO BOTH SIDES. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR HS SENSOR OPERATING WITH REMOTE TEST CAPABILITY:

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 639)
2. ALARM CRITERIA: - VELOCITY 0.3 FT/SEC TO 15 FT/SEC AT ALL RANGES UP TO 30 FT.
3. HIGH SECURITY FEATURES - AND /OR GATED SWITCHABLE ANTI MASKING – REMOTE POWER SHUTOFF
4. TAMPER PROTECTION - MEET UL 634
5. OPERATIONAL POWER – 10.5 - 20 VOLTS DC
6. POWER CONSUMPTION - 130mA @ 12 Vdc
7. SENSITIVITY ADJUSTMENT - PROVIDES FIELD ADJUSTABLE SENSITIVITY AND RANGE CONTROLS.

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 11

SENSOR: VIBRATION SENSOR (VS) WITH REMOTE TEST

MODEL: SENTROL DV1200 SERIES ADVISOR X OR EQUAL

DESCRIPTION. THE VIBRATION SENSOR (VS) IS DESIGNED TO DETECT FORCED PENETRATION IN VAULTS, SAFES, OR OTHER REINFORCED AREAS. IN A TYPICAL APPLICATION, THE VS IS MOUNTED ON THE SURFACES, WALLS, OR CEILINGS TO BE PROTECTED. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR VS SENSOR WITH REMOTE TEST CAPABILITY:

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 639)
2. ALARM CRITERIA: - SHALL DETECT VIBRATION CAUSED BY HAMMERING, DRILLING, CUTTING TOOLS, ETC DETECTION RANGE: REINFORCED CONCRETE - 10 FT RADIUS; CINDER BLOCK MTD ON REINFORCED PORTION - 5 FT RADIUS; CINDER BLOCK MTD ON HOLLOW PORTION - 40 INCHES RADIUS
3. TAMPER PROTECTION - MEET UL 634
4. SENSOR STIMULUS - ALLOWS SENSOR TO BE TESTED FROM A REMOTE LOCATION
5. OPERATIONAL POWER - 12 VOLTS DC
6. POWER CONSUMPTION - LESS THAN 25mA @ 12 Vdc
7. SENSITIVITY ADJUSTMENT - 5 STEPS OF 6 dB - 30 Db

NOTE: SENTROL IS NOW OPERATING UNDER GENERAL ELECTRIC (GE) SECURITY

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 12

SENSOR: DURESS SWITCH

MODEL: ADEMCO 269 OR EQUAL

DESCRIPTION. THE DURESS SWITCH IS INTENDED TO PROVIDE THE MEANS TO COVERTLY NOTIFY THE ALARM ANNUNCIATION SYSTEM THAT A DURESS SITUATION EXISTS. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR A DURESS SWITCH WITHOUT REMOTE TEST CAPABILITY:

**SALIENT CHARACTERISTICS:**

1. UL LISTED (UL 639)
2. DETECTION PERFORMANCE - ALL ACTIVATION
3. FALSE ALARM PERFORMANCE - NONE
4. ALARM CRITERIA: - TO BE ACTUATED DIRECTLY; NO VISIBLE OR AUDIBLE ALARM FROM THE SWITCH; SWITCH SHALL LOCK UNTIL MANUALLY RESET
5. TAMPER PROTECTION - MEET UL 634
6. SWITCH CONTACT RATING: .2A @ 30VDC MAX.

NOTES: ADEMCO IS NOW A DEVISION OF HONEYWELL SECURITY & CUSTOM ELECTRONICS

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 13

SENSOR: GLASS BREAK SENSOR (GBS) WITHOUT REMOTE TEST

MODEL: SENTROL SHATTERPRO-5810 OR EQUAL

DESCRIPTION. THE GLASS BREAK SENSOR (GBS) IS DESIGNED TO DETECT THE AIRBORNE OR ACOUSTIC ENERGY RESULTING FROM THE BREAKING OF SINGLE AND DOUBLE STRENGTH PLATE, FLOAT, LAMINATED, TEMPERED, AND WIRED GLASS. THE GBS IS A STAND-OFF DETECTOR AND, IN A TYPICAL APPLICATION, THE GBS IS MOUNTED ON THE WALLS OR CEILINGS OF THE SECURE AREA TO BE PROTECTED. THE FOLLOWING SALIENT CHARACTERISTICS ARE FOR A GBS WITHOUT REMOTE TEST CAPABILITY:

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 639)
2. ALARM CRITERIA: - SHALL DETECT ACOUSTIC ENERGY RESULTING FROM THE BREAKING OF SINGLE AND DOUBLE STRENGTH PLATE, FLOAT, LAMINATED, TEMPERED, AND WIRED GLASS; WITHIN 20 FOOT RADIUS OF COVERAGE FROM THE BREAKING GLASS.
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER – 9 - 16 VOLTS DC
5. POWER CONSUMPTION - LESS THAN 25mA @ 12 Vdc

NOTE: SENTROL IS NOW OPERATING UNDER GENERAL ELECTRIC (GE) SECURITY

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 14

**WIRELESS SENSOR SYSTEM: CONSISTING OF A SENSOR SUITE WITH INTEGRAL TRANSMITTERS, ASSOCIATED RECEIVER AND A PROGRAMMING DEVICE (IF REQUIRED).**

**MODEL: MODEL NUMBERS SHOWN BELOW ARE REQUIRED OR EQUAL COMPONENTS THAT COMPRISE A COMPATIBLE SYSTEM.**

**SYSTEM DESCRIPTION: THE WIRELESS SENSOR SYSTEM IS INTENDED TO PERFORM INTRUSION DETECTION IN SPECIALIZED INTERIORS. IT IS INTENDED TO BE USED FOR AREAS IN LOCATIONS WHERE STANDARD ICIDS HARDWIRED SENSORS CANNOT BE USED FOR PHYSICAL OR HISTORICAL REASONS. IN THESE LOCATIONS, WIRELESS MAGNETIC SWITCHES AND MOTION SENSORS ARE INSTALLED TO DETECT INTRUSIONS. DURESS SWITCHES ARE PROVIDED FOR PERSONNEL SAFETY. ALARMS FROM THE SENSORS ARE TRANSMITTED TO A CENTRAL RECEIVER, WHICH IS INTERFACED TO AN ICIDS RADC. THE FOLLOWING SALIENT CHARACTERISTICS APPLY TO THE WIRELESS SENSOR SYSTEM:**

**SYSTEM SALIENT CHARACTERISTICS:**

1. PROVIDE FULLY SUPERVISED 900 MHZ SPREAD SPECTRUM COMMUNICATION,
2. USE FREQUENCY HOPPING TECHNIQUES TO REDUCE INTERFERENCE,
3. PROVIDE SUPERVISORY SIGNALS BETWEEN THE SENSOR/TRANSMITTERS AND RECEIVER(S) AT LEAST ONCE EVERY FIVE MINUTES,
4. PROVIDE THE CAPABILITY TO USE ONE OR MORE RF REPEATERS BETWEEN THE SENSORS/TRANSMITTERS AND THE RECEIVER, AND
5. PROVIDE INDICATION OF LOW BATTERY FROM EITHER THE SENSOR/TRANSMITTER OR THE RECEIVER TO THE RADC.

**DESIGNATIONS AND SALIENT CHARACTERISTICS OF INDIVIDUAL SYSTEM COMPONENTS:**

**A. DOOR/WINDOW TRANSMITTER: INOVONICS MODEL FA210W OR EQUIVALENT**

**SALIENT CHARACTERISTICS:**

1. UL LISTED,

PES: 14 CONTINUED

2. ALARM CRITERIA: - OPENING OF A DOOR OR WINDOW,
3. TAMPER PROTECTION - MEET UL 634,
4. PROVIDES A TRANSMITTER WHICH IS FULLY SUPERVISED WITH CASE TAMPER,
5. INCLUDES TWO BUILT IN MAGNETIC REED SWITCHES; ONE ON TOP AND ONE ON THE SIDE FOR MAXIMUM FLEXIBILITY, AND A MAGNET TO SUPPORT AN OPENING OF 5/8 INCH,
6. INCLUDES A REPLACEABLE BATTERY, AND
7. TRANSMITS AN ALARM WHEN THE DISTANCE BETWEEN THE MAGNETIC REED SWITCH AND THE MAGNET EXCEEDS 5/8 INCH.

B. NECKLACE PENDANT: INOVONICS MODEL FA203S OR EQUIVALENT

SALIENT CHARACTERISTICS:

1. UL LISTED,
2. ALARM CRITERIA: ALARM IS TRANSMITTED WHEN THE PANIC BUTTON IS PRESSED,
3. TAMPER PROTECTION - MEET UL 634,
4. PROVIDES A TRANSMITTER WHICH IS FULLY SUPERVISED WITH CASE TAMPER, AND
5. INCLUDES A REPLACEABLE BATTERY.

C. RF PIMS (VOLUME): INOVONICS MODEL FA206S OR EQUIVALENT

SALIENT CHARACTERISTICS:

1. UL LISTED,
2. ALARM CRITERIA: ALARM IS TRANSMITTED WHEN MOTION IS DETECTED WITHIN THE PROTECTED AREA,
3. TAMPER PROTECTION - MEET UL 634,
4. PROVIDES A TRANSMITTER WHICH IS FULLY SUPERVISED WITH CASE TAMPER,
5. INCLUDES A REPLACEABLE BATTERY, AND
6. PROVIDES 45 FEET X 90 DEGREE COVERAGE.

D. 16 TRANSMITTER RECEIVER WITH DISPLAYS AND FOUR OUTPUT RELAYS: INOVONICS MODEL FA416DR OR EQUIVALENT.

SALIENT CHARACTERISTICS:

1. UL LISTED,
2. INCLUDES A REPLACEABLE BATTERY,
3. ACCEPTS 16 TRANSMITTER INPUTS, AND

PES: 14 CONTINUED

4. PROVIDES FOUR FORM C RELAY OUTPUTS.

E. 64 TRANSMITTER RECEIVER WITH DISPLAYS AND 16 OUTPUT RELAYS:  
INOVONICS MODEL FA464DR OR EQUIVALENT.

SALIENT CHARACTERISTICS:

1. UL LISTED,
2. INCLUDES A REPLACEABLE BATTERY,
3. ACCEPTS 64 TRANSMITTER INPUTS, AND
4. PROVIDES 16 FORM C RELAY OUTPUTS.

F. HIGH POWER REPEATER: INOVONICS MODEL 575 OR EQUIVALENT

SALIENT CHARACTERISTICS:

1. UL LISTED,
2. RANGE UP TO 4 MILES UNDER OPEN FIELD CONDITIONS,
3. INCLUDES 14VAC/20VA TRANSFORMER WITH BACK UP  
BATTERY, AND
4. PACKAGED IN A HOUSING SUITABLE FOR EXTERIOR USE.

G. EXECUTIVE PROGRAMMER: INOVONICS MODEL FA 116 OR EQUIVALENT

SALIENT CHARACTERISTIC:

USED, IF REQUIRED, TO PROGRAM WIRELESS SYSTEM COMPONENTS  
DURING INSTALLATION AND AS AN AID IN TROUBLESHOOTING.

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 15

SENSOR: EXTERIOR MICROWAVE MOTION SENSOR (EMMS)

MODEL: PERIMETER PRODUCTS INC. (PPI) MPS-14100 OR EQUAL

DESCRIPTION. THE EXTERIOR MICROWAVE MOTION SENSOR (EMMS) IS A BISTATIC EXTERIOR PERIMETER INTRUSION DETECTION SENSOR. IT IS INTENDED TO DETECT A PERSON OR VEHICLE MOVING THROUGH ITS ZONE OF DETECTION. IN A TYPICAL APPLICATION, THE PRODUCT IS MOUNTED NEAR OR BETWEEN FENCE LINES TO PROTECT THE PERIMETER OF AN AREA.

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 639)
2. ALARM CRITERIA - VELOCITY 0.1 FT/SEC TO 15 FT/SEC (88 FT/SEC FOR VEHICLES) AT ALL RANGES UP TO 330 FT
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER – INPUT 110/220 VAC OUTPUT 13.6 VDC
5. POWER CONSUMPTION – 10.5 VDC TO 15 VDC @ 100 MA
6. SENSITIVITY ADJUSTMENT - PROVIDE A FIELD ADJUSTABLE SENSITIVITY CONTROL

NOTES:

- A. PERIMETER PRODUCTS INC. (PPI) PURCHASED RACON MICROWAVE MOTION SENSOR PRODUCTS ONLY, NOT THE FENCE MOUNTED VIBRATION SENSOR SUCH AS FENCE GUARD F-100.
- B. PERIMETER PRODUCTS INC. AND SENSTAR-STELLAR INC. ARE NOW OPERATING UNDER MAGAL SENSTAR INC.

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 16

SENSOR: EXTERIOR INFRARED PERIMETER SENSOR (IPS)

MODEL: TAKEX PB-IN100AT (ANTI CRAWL) OR EQUAL

DESCRIPTION. THE EXTERIOR INFRARED PERIMETER SENSOR (IPS) IS A PEDESTAL MOUNTED, ACTIVE INTRUSION SENSOR CONSISTING OF A TRANSMITTER AND RECEIVER MOUNTED IN TWO EXTERIOR POST TYPE HOUSINGS. THE TRANSMITTER CONSISTS OF MULTIPLE MODULATED OR PULSED INFRARED BEAM EMITTING TRANSMITTERS. THE RECEIVER CONSISTS OF MULTIPLE INFRARED BEAM COLLECTING RECEIVERS. AN ALARM IS GENERATED WHEN A PERSON OR VEHICLE MOVES THROUGH THE ZONE OF DETECTION INTERRUPTING THE BEAM BETWEEN A TRANSMITTER AND A RECEIVER OR DISTURBING THE BEAM MODULATION. CONFIGURATION IS OPTIMIZED TO DETECT CRAWLING INTRUDERS.

SALIENT CHARACTERISTICS:

1. UL LISTED (UL 639)
2. ALARM CRITERIA - VELOCITY 0.1 FT/SEC TO 88 FT/SEC AT ALL RANGES UP TO 330 FT
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER – INPUT 110/220 VAC
5. POWER CONSUMPTION – 12-30 VDC <105 MA PER UNIT
6. SENSITIVITY ADJUSTMENT - PROVIDE A FIELD ADJUSTABLE SENSITIVITY CONTROL

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 17

SENSOR: STRAIN SENSITIVE CABLE FENCE (SSCF)

MODEL: PERIMETER PRODUCTS INC. (PPI) FPS-2-2RH OR EQUAL

DESCRIPTION. THE STRAIN SENSITIVE CABLE FENCE (SSCF) SENSOR IS AN EXTERIOR INTRUSION DETECTION SENSOR THAT ATTACHES TO A FENCE (CHAINLINK). IT IS DESIGNED TO DETECT INTRUDER ATTEMPTS TO CLIMB, CUT, OR LIFT THE FENCE FABRIC. EACH SENSOR PROCESSOR CAN PROTECT TWO 1000 FT ZONES.

**SALIENT CHARACTERISTICS**

1. UL LISTED (UL 639)
2. ALARM CRITERIA – INTRUSION ATTEMPTS BY PULLING, TUGGING, CUTTING, OR CLIMBING THE FENCE WILL BE DETECTED FOR TWO 1000 FT ZONES
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER – INPUT 110/220 VAC
5. POWER CONSUMPTION – 12 VDC @ 100 MA
6. SENSITIVITY ADJUSTMENT - PROVIDE A FIELD ADJUSTABLE SENSITIVITY CONTROL

NOTE: PERIMETER PRODUCTS INC. (PPI) IS NOW OPERATING UNDER MAGAL SENSTAR INC. PPI PART NUMBERS REMAIN THE SAME.

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 18

SENSOR: TAUT WIRE FENCE SENSOR (TWFS)

MODEL: MAGAL DTR-2000 OR EQUAL

DESCRIPTION. THE TAUT WIRE FENCE SENSOR (TWFS) IS AN EXTERIOR SENSOR USING TENSIONED BARBED WIRE DISPLACEMENT TO DETECT INTRUSION ATTEMPTS BY CUTTING, PULLING, OR A FENCE CLIMBING INTRUDER. THE SENSOR CAN BE ATTACHED TO VERTICAL OR 'Y' OUTRIGGERS.

**SALIENT CHARACTERISTICS:**

1. UL LISTED (UL 639)
2. ALARM CRITERIA – A LATERAL FORCE OF 33 POUNDS APPLIED TO ANY STRAND OF THE BARBED WIRE OR A 6 INCH LATERAL DEFLECTION OF ANY STRAND WILL GENERATE AN ALARM
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER – INPUT 115/230 VAC 50-60- HZ
5. POWER CONSUMPTION – 6 WATTS MAX.
6. SENSITIVITY ADJUSTMENT – FACTORY SET TO MAXIMUM SENSITIVITY WITH NO PERIODIC ADJUSTMENT REQUIREMENT.

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 19

SENSOR: PORTED COAX CABLE SENSOR (PCCS)

MODEL: SENSTAR STELLAR "PERIMITRAX" OR EQUAL

DESCRIPTION. THE PORTED COAX CABLE SENSOR (PCCS) IS AN EXTERIOR BURIED LINE SENSOR DESIGNED TO DETECT HUMANS AND VEHICLES CROSSING THE DETECTION ZONE. THE SENSOR USES A PAIR\* OF COAXIAL CABLES BURIED PARALLEL TO EACH OTHER ALONG THE PERIMETER AND CONNECTED TO A SENSOR PROCESSOR. WHEN AN INTRUDER DISTURBS THE ELECTROMAGNETIC FIELD BETWEEN THE CABLES, AN ALARM IS GENERATED. EACH SENSOR PROCESSOR CAN CONTROL 2 ZONES. EACH ZONE MAY BE UP TO 200 METERS IN LENGTH.

**SALIENT CHARACTERISTICS:**

1. UL LISTED (UL 639)
2. ALARM CRITERIA – MOTION OF A HUMAN INTRUDER BETWEEN 0.05 AND 8 METERS/SECOND SHALL GENERATE AN ALARM.
3. TAMPER PROTECTION - MEET UL 634
4. PROCESSOR OPERATIONAL POWER: 12 VDC @ 500 MA OR 48 VDC @ 175 MA
5. POWER OUTPUT FOR AUXILLIARY DEVICES PER PROCESSOR – WITH BATTERY BACKUP. 12 VDC @150 MA
6. SENSITIVITY ADJUSTMENT - PROVIDE A FIELD ADJUSTABLE SENSITIVITY CONTROL

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 20

SENSOR: RF FIELD DISTURBANCE SENSOR

MODEL: AURATEK WAVE-GUARD FSP-100, FSP-200, AND FSP-400 OR EQUAL

DESCRIPTION. THE RF FIELD DISTURBANCE SENSOR IS AN EXTERIOR SENSOR INTENDED FOR PERIMETER PROTECTION BY DETECTING AN INTRUDER APPROACHING OR CROSSING THE DETECTION ZONE. THE SENSOR USES A STANDARD COAXIAL CABLE THAT MAY BE SURFACE DEPLOYED, BURIED, OR ATTACHED TO A BARRIER ALONG THE PERIMETER. THE SENSOR FIELD IS ESTABLISHED USING A LEAKY COAXIAL CABLE TO CREATE AN ELECTROMAGNETIC VOLUMETRIC DETECTION FIELD OF 1 METER RADIUS AROUND THE COAXIAL SENSOR CABLE. A SERIES OF SMALL ANTENNA OR ANOTHER CABLE PLACED IN PARALLEL, MONITORS THE SIGNAL. AN ALARM WILL TRIGGER WHEN THE SIGNAL IS DISTURBED. FSP-400 PROCESSOR CAN PROTECT 8 ZONES OF UP TO 50 METERS EACH.

**SALIENT CHARACTERISTICS:**

1. UL LISTED (UL 639)
2. ALARM CRITERIA – MOTION OF A HUMAN INTRUDER BETWEEN 0.05 AND 8 METER/SECOND (0.15 – 26 FT/SEC) SHALL GENERATE AN ALARM.
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER – INPUT 110/220 VAC
5. POWER CONSUMPTION RECEIVER– 5 - 24 VDC @ .300 mA. POWER CONSUMPTION TRANSMITTER – 5 – 24 VDC @ 150 mA, BATTERY BACKUP IS AVAILABLE
6. SENSITIVITY ADJUSTMENT - PROVIDE A FIELD ADJUSTABLE SENSITIVITY CONTROL

NOTE: AURATEK WAS ACQUIRED BY DETEKION SECURITY SYSTEMS, INC. ENCLOSURE PRODUCT LINE IS REPLACED BY WAVE-GUARD LINE OF PRODUCTS.

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 21

SENSOR: FIBEROPTIC PERIMETER SENSOR (FOPS)

MODEL: FIBER SENSYS, INC. DEFENDER FD-208 OR EQUAL

DESCRIPTION. THE FIBEROPTIC PERIMETER SENSOR (FOPS) IS AN EXTERIOR INTRUSION DETECTION SENSOR THAT MAY BE MOUNTED ON FENCES, WALLS, ROOFTOPS, OR BURIED UNDER GRAVEL OR SOD. UTILIZING ADVANCED SIGNAL PROCESSING, THE SENSOR IS DESIGNED TO DETECT HUMANS CROSSING THE DETECTION ZONE. THE SENSOR USES FIBER OPTIC CABLE THAT DETECTS MOTION BY MEANS OF VIBRATION, AND CHANGES IN PRESSURE PROCESSED BY ALARM PROCESSING UNIT, WHEN AN INTRUDER CROSSES THE DETECTION ZONE. EACH SENSOR CAN PROTECT A ZONE UP TO A MAXIMUM LENGTH OF 1981 METERS.

**SALIENT CHARACTERISTICS:**

1. UL LISTED (UL 639)
2. ALARM CRITERIA – MOTION OF A HUMAN INTRUDER BETWEEN 0.1 AND 8 METERS/SECOND SHALL GENERATE AN ALARM.
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER – INPUT 12 – 24 VDC
5. POWER CONSUMPTION 12 – 24 VDC. 3 WATTS TYPICAL
6. SENSITIVITY ADJUSTMENT - PROVIDE A FIELD ADJUSTABLE SENSITIVITY CONTROL

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 22

SENSOR: FENCE MOUNTED VIBRATION SENSOR SYSTEM (FMVSS)

MODEL: SOUTHWEST MICROWAVE INTREPID OR EQUAL

DESCRIPTION. THE FENCE MOUNTED VIBRATION SENSOR SYSTEM, (FMVSS), IS AN EXTERIOR INTRUSION DETECTION SENSOR SYSTEM. IT IS MOUNTED ON A CHAINLINK FENCE TO DETECT MOTION SUCH AS INTRUDER CLIMBING, PULLING, AND CUTTING. WHEN THE VIBRATION SIGNALS EXCEED A PRESET THRESHOLD AND OTHER PRESET CONDITIONS, AN ALARM WILL RESULT. THE FMVSS IS INSENSITIVE TO NOISE DUE TO WIND AND RAIN. IT AUTOMATICALLY COMPENSATES FOR VARIATIONS IN THE FENCE CONDITION. DETECTION AND LOCATION OF INTRUSION IS PERFORMED BY DIGITAL TIME DOMAIN REFLECTOMETRY METHODOLOGY PROCESSED BY PROCESSOR MODULE MOUNTED ON THE CHAINLINK.

**SALIENT CHARACTERISTICS:**

1. UL LISTED (UL 639)
2. ALARM CRITERIA – INTRUSION ATTEMPTS BY PULLING, TUGGING, CUTTING, OR CLIMBING THE FENCE WILL BE DETECTED. EACH PROCESSOR HANDLES DATA FROM TWO LENGTHS OF CABLE. EACH CABLE MAY BE UP TO 200 METERS LONG. UP TO EIGHT PROCESSORS MAY BE LINKED FOR LONG PERIMETERS.
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER – INPUT 110/220 VAC
5. POWER CONSUMPTION PROCESSOR – 10.5 to 60 VDC @ 11 WATTS
6. SENSITIVITY ADJUSTMENT - PROVIDE A FIELD ADJUSTABLE SENSITIVITY CONTROL

NOTE: INTREPID IS A TRADEMARK OF SOUTHWEST MICROWAVE, INC.

**PERFORMANCE EQUIVALENCE SHEET (PES) FOR ICIDS-IV**

PES: 23

SENSOR: FENCE MOUNTED VIBRATION SENSOR SYSTEM (FMVSS)

MODEL: FIBER SENSYS, INC COPPERHEAD™ CH402KT OR EQUAL

DESCRIPTION. THE FENCE MOUNTED VIBRATION SENSOR SYSTEM, (FMVSS), IS AN EXTERIOR INTRUSION DETECTION SENSOR SYSTEM. IT UTILIZES PIEZOELECTRIC CABLE MOUNTED ON A CHAINLINK FENCE TOGETHER WITH ADVANCED DIGITAL SIGNAL PROCESSING (DSP) TO DETECT MOTION SUCH AS INTRUDER CLIMBING, PULLING, AND CUTTING. THE DSP UTILIZES SPECIAL ALGORITHMS TO REJECT TO NOISE DUE TO WIND AND RAIN. WIND REJECTION CAPABILITY CONTINUOUSLY OPTIMIZES SENSOR PERFORMANCE WITHOUT EXTERNAL ANEMOMETERS OR WEATHER STATIONS.

**SALIENT CHARACTERISTICS:**

1. UL LISTED (UL 639)
2. ALARM CRITERIA – INTRUSION ATTEMPTS BY PULLING, TUGGING, CUTTING, OR CLIMBING THE FENCE WILL BE DETECTED AND LOCATED WITHIN TWO ZONES FOR EACH PROCESSOR. EACH ZONE IS 100 METERS LONG (MAX 500 M). INSENSITIVE REGIONS MAY BE PROVIDED ANYWHERE IN THE ZONE, UP TO 500 METERS.
3. TAMPER PROTECTION - MEET UL 634
4. OPERATIONAL POWER – INPUT 110/220 VAC
5. POWER CONSUMPTION 10 – 26 VDC @ 1.5 WATTS TYPICAL
6. SENSITIVITY ADJUSTMENT - PROVIDE A FIELD ADJUSTABLE SENSITIVITY CONTROL

NOTE: COPPERHEAD IS A TRADEMARK OF FIBERSENSYS, INC.